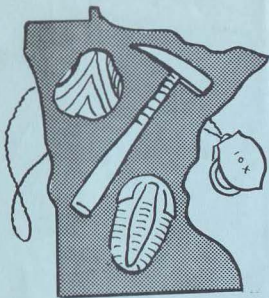


Dec 1979  
Jan, Feb 80



# NEWS

Geological Society of Minnesota



MINNEAPOLIS, MINNESOTA

FIRST CLASS



Stnel A. Shimek  
2745 Colfax Ave. So.  
Minneapolis, Minn. 55408

RETURN REQUESTED

DEC 4 RECD

Barbara Gudmundson  
5505 25th Ave S  
Minneapolis  
Mn. 55417

## OFFICERS

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642-1313  
781-0733  
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545-3912

## BOARD DOINGS - ELECTIONS

At the annual meeting Virginia Baker, Jay Hutohinson, and Elaine Fink were elected for a first term; Pat Wigton and Henry Gangle were re-elected for a second term on the Board.

Officers for 1980 were elected at the October meeting of the Board. They were: President, Barbara Gudmundson; Vice-President, Henry Gangl; Secretary, Robert Handschin; and Treasurer, Pat Wigton. The new officers will assume their duties in January.

## LECTURE SERIES TO CONTINUE

Dr. Alexander's lectures on recent explorations in space have been drawing large audiences. In addition we were treated to "Mars in Three D" A film presented by Dr. Elliot Levinthal, Stanford U.

Beginning in January, Dr. H.O. Pfannkuch will hold forth on "Geology and Eco-Geology" for four lectures. Following that Dr. Peter Huddleston will give three talks on "Geological Principles, Old and Modern".

Our program committee is to be congratulated on preparing this excellent series.



## DIGGING INTO NATURE'S DEEP, DARK PAST

What do salt water fish scales, dinosaur bones and Vernal, Utah, have in common? The answer is a salvage fossil hunt conducted by Dr. Robert Sloan and four graduate students last summer.

Vernal, Utah is in the midst of a parched countryside where farmers struggle to raise corn, clover, wheat and alfalfa. Farmers and cattlemen lease some of the federal land that constitutes 66 per cent of the state. The rest is wilderness, left to crack and crumble under searing summer sun and the marrow-numbing winters. A walk across the banded countryside will take you through a billion years of evolution.

Dr. Robert Sloan and three of his students won a contract from the federal Bureau of Reclamation to prospect a 4-aquare-mile area that will be flooded. The resulting lake, to be called Red Fleet Reservoir after a huge rock outcropping that resembles a battleship at full steam, will provide water to area farmland constantly teetering on the edge of drought. They were to collect fossil samples and learn what paleontological records will be lost when the area is flooded.

To Sloan and his colleagues, the history of life on earth is a vast, branching tree of evolution, and the imprint of unknown branches lay broken and scattered in the rocks around us.

"One way you can look at paleontology is as the study of a whole series of experiments in ecology that have already taken place," Sloan said. "That is the way I look at it."

Ultimately, some of the information found on field trips like this may be useful in prospecting for minerals, oil and uranium.

The main attraction for the scientists is having a chance to do what they like best.

Dr. Sloan is known to GSM members as a lecturer and field trip leader. In Eastern Montana he found the triceratops which stands in the Lobby of the Science Museum. His students on the trip were: Joe Hartman, 29, a top doctoral candidate, specializing in fresh-water mollusks; Martha Jordan, 38, wife of a University Professor and mother of 3, who is working on a master's degree in geology; and Laurie Dempsey, 25, graduate student working on her thesis on primeval fish.

Their camp was three tents on a hill a few hundred yards from Steinkor Lake, midway between Vernal and the Red Fleet Reservoir site. From this base they collected for a month. Most of the work is climbing, crawling up or down hills, hammering and chipping. For large pieces Sloan's old Scout International truck was invaluable, as it is equipped with a winch and is not fazed by rugged terrain.

The work on the dam is already in progress in the dusty, rocky valley near the camp - an area Sloan called 'Chaos' - a mythological place between heaven and hell.

Cont p.8

# WELCOME NEW MEMBERS...

## New Members

Peter Dille  
924 17th Ave. SE #302  
Minneapolis 55414

Sheldon Erickson &  
Connie Keldson  
1108 4th St. SE #2  
Minneapolis 55414

Ronald Ezuok  
1320 Lincoln Terrace NE  
Minneapolis 55421

Bob Ferderer  
440 E. Hoyt Av.  
St. Paul 55101

Virginia Holte  
3525 Irving Av. S.  
Minneapolis 55408

Tina Lindsay  
180 Montrose Pl.  
St. Paul 55101

Nicholas & Virginia Puzak  
44 Clarence Av. SE  
Minneapolis 55414

Frederic & Virginia Rosenberg  
4525 Drexel Av. S.  
Edina 55424

Dick & Eva Selander  
5129 29th Av. S.  
Minneapolis 55417

George F. Thornquest  
1207 Adams St. NE  
Minneapolis 55413

Robert A. Salzberg  
2119 Dudley Av.  
St. Paul 55108

Edward P. Fitzgerald  
2004 Clear Av.  
St. Paul 55119

Timothy Jay Moenoh  
412 22nd Av. S. #331  
Minneapolis 55455

Renee Zurn  
Comstock Hall #412E  
180 SE Delaware St.  
Minneapolis 55414

Paul Janke  
9056 Kimbro Av. S.  
Cottage Grove 55016

Dean Lokken  
1823 15th Av. S.  
Minneapolis 55404

H. O. & Georgette Pfannkuch  
2358 Bourne Av.  
St. Paul 55108

Conrad Nelson  
900 Centennial Place  
Minneapolis 55404

Bonnie Mae Ryg  
3124 W. 44th St  
Minneapolis 55410

Gretchen Schneider  
412 22nd Av. S  
Minneapolis 55455

Barbara and Gerald West  
3034 Eighth Av. N.  
Anoka 55303

Ralph & Ann Chantry  
16508 Swede Hill Drive  
Afton 55001

Cynthia Nelson  
3215 Columbus Av. S  
Minneapolis 55407



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GEOLOGY IS A "DOWN-TO-EARTH" SUBJECT!

## In Memoriam

Martha Peterson died on November 4 at the age of 88. She was alert and active all the while until she just didn't wake up one day. A GSM member from the late '40's, she served on the Board, Membership chair, Hospitality, Exhibits among others.

She was responsible for a number of innovations: starting a booth at the State fair, selecting the excellent location we now have in the Education building. She also got a class started in basics of geology with Richard Bartels as instructor. The class was the forerunner of the labs.

Martha grew up on a farm in western Minnesota, attended Augsburg College and U of M where she earned a degree in Home Economics. She taught in the Minneapolis public schools for many years.

We were lucky to have her in our midst and will miss her.

## CHANGE OF ADDRESS

Sophia Wojtysiao  
3736 Bloomington Av. S.  
Minneapolis 55407

Rodney M. & Peggy Lynn  
Nerdahl  
1178 Englewood Av.  
St. Paul 55104

Leone Knox  
% Mrs. Mary Ann Knox  
Rte. #1-A Box 9  
Fischer, Minn, 56725

Dr. J. S. Lewis  
1190 Grand Av. Apt 4  
San Diego, Cal 92109

Pat Lewis is a former president,  
board member and served on the  
program committee.

## SPECIAL EVENT

The National Geographic for November 1978 article on Galapagos II was about the deep sea explorations recently conducted.

Topics included: sea floor exploration, strange world without sun, mid-oceanic ridge in Pacific, life in the deep, such as bacteria, clams worms, lava lakes and frozen lava pillars, minerals erupting at hot spots containing iron, zinc, and copper sulfides.

A film will be aired on Public Broadcasting Service sometime in January. Channel 2 people did not know whether they would show it. So, watch for it.

## REMINDER ...

Membership dues for 1980 may be sent to Marjorie Mc Gladery, Rte. 1 Box 17F, Elko, Minn. 55108, or may be paid at the lecture. Fees are: Adults - \$7.00, Husband and wife - \$10.00, Students - \$2.00.



# GEOLOGICAL SOCIETY OF MINNESOTA

ANNUAL FINANCIAL STATEMENT

12-31-77 to 12-31-78

## I. CURRENT OPERATIONS

### INCOME

Dues for 1978	\$426.00	
1979	<u>538.00</u>	
	\$	964.00
Coffee		50.48
Misc.		<u>12.00</u>
Operating Income	\$1,026.48	\$1,026.48

### EXPENSE

Lectures: Fees Paid	\$480.00	
Printed Programs	96.30	
	<u>\$576.30</u>	576.30
Lab Fee Guarantee		24.00
June Field Trip: rec'd	90.00	
Paid Out	<u>90.00</u>	
	0.00	0.00
Newsletter		284.97
Membership: postage	31.58	
1978 Roster	<u>53.90</u>	
	85.48	85.48
Spring Banquet:	473.08	
Collected	<u>450.00</u>	
	23.08	23.08
Annual Meeting		0.00
Bank Costs		18.95
Misc.		<u>29.96</u>
Operating Expense	\$1,042.74	\$1,042.74

NET CURRENT OPERATIONS (deficit) \$ -16.26

## II. PUBLIC SERVICE PROJECTS

Expenses	\$	520.94	
Less: interest from savings		<u>-242.16</u>	
Net Public Expense	\$	278.78	\$ 278.78
Checking account balance: 12-31-78	\$	32.44	
Savings Account Balances 12-31-78:			
Account #52-106454		370.67	
Account #56-106456		<u>3,403.20</u>	
TOTAL	\$3,773.87		
GRANT TOTAL	\$3,806.31		



## GSM GIVES WEBERS CAMERA

Dr. Gerald Webers of Macalester College left November 5th for New Zealand and the Antarctic, with a gift from G.S.M. members to help with his explorations there. At the suggestion of Mary Kimball that we assist Gerry, the Board voted to find out what he might need. It turned out that he needed a polaroid camera for which there were no funds available. He planned to use it to develop on-the-spot photos for his notebook, to supplement or take the place of field sketches. Dr. Webers was happy to get the polaroid camera best suited for his use in freezing temperatures, together with an ample supply of film.

Webers is heading the major Antarctic expedition of the year. (Story was in last Newsletter.) Over the years Gerry has given many GSM lectures, conducted GSM lab sessions and led our field trips. He has always been most generous with us. So it is with a feeling of gratitude that many have contributed. Up to now 38 members have donated \$200.

Thanks to all who have responded, we are happy to have a chance to participate in this small way in the expedition.

### Donors:

Allan & Barbara Lundgren  
Mary Kimball  
Henry Gangl,  
Mrs. Helen Woodward  
Calvin Alexander  
Eva O'Leary  
John Podelinsky,  
Ronald J. Ezuck  
Bob & Marcia Gunville  
Tina Lindsay  
Alec & Marlys Lowe  
Cec MacDonald  
Marjorie McGladrey  
Mary O'Connor  
Nicholas Puzak  
Frederic Rosenberg  
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Dr. Valentine O'Malley  
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Samuel B. Mayo  
Michael & Cora Vaclavek  
Bob & Emilie Handschin  
Myrtle & Earl Fore

Ruth Brown

## NATURE'S PAST CONTINUED

P.8

One may ask: What really is accomplished as a result of such a study? How did sea shells get on top of a mountain? The gaps in present knowledge are slowly being filled. The answer is that nothing is permanent; earth is dynamic, constantly and slowly changing.

The dating of rocks and strata, correlating them with those in different parts of the world, is one important result. On top of a cracked clay hill Joe Hartman was collecting rocks shaped like clams and snails. Meanwhile Martha Jordan and Laurie Dempsey were wandering over the hill, dropping a quarter meter square frame on the rock and counting the clams, taking a census.

The clams in Vernal Area are the same as those found in England. If lab work back in Minneapolis bears out findings in the field, Jordan will have strengthened evidence that Jurassic Period environments were similar in Utah and England.

Improved dating would be important to the search for minerals and oil.

On the side of a hill where a winding road leads toward a dam that will hold the waters of the Red Fleet Reservoir, the group was looking for fish scales. You can tell from a fish scale what kind of fish lived here 100 million years ago when this was a shallow sea. The rock was shale, a layer a couple of feet thick. Above it was a layer of volcanic ash that will tell exactly the age of the scales.

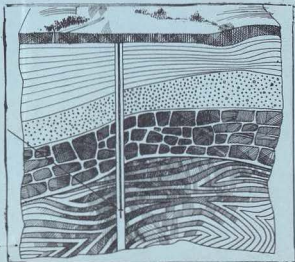
In this area Sloan found a complete skeleton of a fish - the first vertebrate found on the trip.

In geology there is something for everyone.

Compiled from an article in Tribune, Sept, 29, 1979



Assistants: Bob Handschin, Ellen Eiermeier and Helen Anderson  
typing; James Erickson, artist;  
Ann and Irene Jworski, Mailing.



Drill shaft through strata -->